DOCUMENT RESUME

ED 355 956 IR 054 516

AUTHOR Williams, Robert A.
TITLE The Effectiveness of the Online Card Catalog for Sixth, Seventh, and Eighth Grade Students at Sailorway Middle School Library: A Survey.
PUB DATE Nov 92
NOTE 44p.; Master's Research Paper, Kent State University.
PUB TYPE Dissertations/Theses - Masters Theses (042) -- Reports - Research/Technical (143) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Childrens Libraries; Grade 6; Grade 7; Grade 8; *Information Utilization; Junior High Schools; Junior High School Students; Library Automation; *Library Catalogs; Middle Schools; *Online Catalogs; *School Libraries; Student Attitudes; Users (Information)
IDENTIFIERS Middle School Students; Student Surveys; Vermilion Local School District OH

ABSTRACT

The effectiveness of the online card catalog at Sailorway Middle School in Vermilion (Ohio) was studied. The library became fully automated in 1991. The participants were 76 sixth, 90 seventh, and 70 eighth graders (102 males and 134 females), ranging in age from 12 to 14 years. A survey determined the degree of effectiveness of the online card catalog in the opinions of the students. Participants gave high marks to the availability of the online catalog, although the degree of acceptance rose with the grade level. All student levels rated their future use of this new technology as extremely likely. Results indicate that online card catalogs are effective in the views of student patrons. Eight tables present study findings. An appendix contains the survey form. (Contains 17 references.) (Author/SLD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

IR

ED355956

THE EFFECTIVENESS OF THE ONLINE CARD CATALOG FOR SIXTH, SEVENTH, AND EIGHTH GRADE STUDENTS AT SAILORWAY MIDDLE SCHOOL LIBRARY: A SURVEY

A Master's Research Paper submitted to the
Kent State University School of Library and Information Science
in partial fulfillment of the requirements
for the degree Master of Library Science

by

Robert A. Williams

November, 1992

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Robert Williams

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

12054576

BEST COPY AVAILABLE

ABSTRACT

This is a study of the online card catalog at Sailorway Middle School in Vermilion, Ohio. The library became fully automated in 1991. The participants are sixth, seventh and eighth grade students. A survey is used to determine the degree of effectiveness the online card catalog has in the opinions of the students. Little research on this topic exists in the library field. The participants gave high marks to the availability of an online card catalog, although the degree of acceptance rises with grade level. All student levels rated their future use of this new technology as extremely likely.

Master's Research Paper by

Robert A. Williams

B.S.Ed., Bowling Green State University, 1971

M.Ed., Bowling Green State University, 1975

M.L.S., Kent State University, 1992

Approved by

Adviser_____Date _____

TABLE OF CONTENTS

LIST OF TABLES....iv

Chapter

I. INTRODUCTION....1

Rationale....1

Purpose of the Study....4

Background....4

Definitions of Terms....5

Limitations....6

II. REVIEW OF THE LITERATURE....7

III. METHODOLOGY....23

Subjects....23

Data Collection....23

Data Analysis....24

IV. RESULTS....25

V. SUMMARY AND CONCLUSIONS....34

Appendix

A. Questionnaire....36

BIBLIOGRAPHY....37

LIST OF TABLES

Table Page

1. Distribution of Subjects by Sex and Grade Level 25

2. Student's Perceptions of Their Experience with Online Card Catalog by Grade Level.....26

3. Ease of Use for the Online Card Catalog as Determined by Students.....27

4. Student's Perceptions That the Online Card Catalog is Easier to Use Than the Paper Card Catalog.....28

5. Student's Perception Than More Materials Were Found Using the Online Card Catalog vs the Paper Card Catalog.....29

6. Male Student Perceptions That More Materials Were Found Using the Online Card Catalog vs the Paper Card Catalog.....31

7. Female Student Perceptions That More Materials Were Found Using the Online Card Catalog vs the Paper Card Catalog.....32

8. Students Planning To Use the Online Card Catalog in the Future.....33

CHAPTER I

INTRODUCTION

Rationale

Automation is affecting every type and kind of library today. Librarians are aware of its presence and in most cases the advantages it brings to the field of librarianship. They are keenly aware of the rapidly changing methods used to gain access to library resources. Electronic access via online\CD-ROM systems is becoming the norm in indexing\abstracting services and library catalogs. Increasing amounts of libraries have shifted to technologically based access to these materials.

Compared to other librarians, school library media specialists, have not been either leaders in automation or on the forefront of computer technology. Recent surveys have indicated, though, increased use of computers, particularly microcomputers, for cataloging, inventory, budgeting, and other library management functions. The lowered prices of hardware and software, increased ease of use, greater performance, and expanding capabilities are major factors that have accelerated computer applications in school library media centers over the past several years.

School library media specialists are showing special interest in two areas: automated circulation and the online card catalog. Once thought to be far beyond the realm of possibility these are now receiving serious attention. A survey conducted in 1988 indicated that only 6 percent of those surveyed had an automated catalog, but over four times that number, 27 percent, were planning to have one in the near future. More recent surveys completed just a year or two ago have indicated sharp increases in the use, some 48 percent. It is highly likely this number will rise sharply in the mid 1990s.

Developing a fully automated circulation system is a quantum leap from using the earlier developed library management programs. A much greater commitment of time, energy, expertise, and money is required to implement the system, but yields are greater in terms of improved services. Automated circulation systems provide a more efficient and speedier approach for tracking overdues, but they can also be used for managing inventory and collection development activities. A variety of statistical summaries and reports can be generated from the data in a circulation system. This makes it possible to answer a range of questions: What sections are most used or never circulate? What is preferred by grade levels? What is searched for and not

found? When is circulation high or low during the year? Of course, the actual reporting capabilities depend on the sophistication of the system. The integration of an online card catalog produces a system for both the library personnel and direct use by the patron.

The number of online card catalogs in use today within the school community is rapidly growing. Vendors have suddenly come on the scene to provide this new technology. Some programs have been rated less than good and they clearly give evidence of being done with little regard to school library needs. These developments require attention to the particular needs of each school media center and that the online card catalog is suitable for their needs.

School library media specialists are moving rapidly today toward automating their libraries. This in many cases means total automation to include the online card catalog. The value of this new technology is receiving great fanfare from computer program vendors and hardware equipment suppliers. While the information provided by these people is basically correct, the truth is, very little research exists to support the value this new technology offers.

The school community has been void of the type and degree of studies conducted of the online card catalog as seen in the academic and public libraries community. The fact is, no systemic study of online card catalog use by children has ever been reported. To date, automation research has made only brief reference to this user group, and then the focus has been primarily on acceptance of technology, not the effectiveness of it.

Librarians must evaluate the patrons use and the skill levels required by software design to be assured that children's access to materials is not hindered by the introduction of an online card catalog.

Purpose of the Study

The purpose of this study is to determine the effective use of an online card catalog by sixth, seventh, and eighth grade students at Sailorway Middle School Library. The students through the Spring of 1991 used a paper card catalog to access library materials. The start of the 1991-1992 school year initiated the start-up of an operational online card catalog.

Background

Sailorway Middle School is part of the Vermilion Local Schools in Vermilion, Ohio. The school has a population of six hundred students ranging in age from ten to fourteen years old.

The faculty numbers thirty-eight with some additional part-time faculty.

The community Sailorway Middle School serves is middle class with more than half considered blue collar workers. Parents and citizens of the district give favorable support to the school district and there is common belief that school achievement is directly linked to later accomplishments in life.

The library is less than ten years old having begun with the construction of the new middle school. It supports the educational thoughts and theories that were existent in the early 1980s. Easy access from class and study hall, sufficient room for classes and quiet study, pleasant atmosphere, ample space for growth and new technologies of the future. The automation of the library includes a network system with two student terminals provided. The library automation program is a product of Nicholas Technologies and marketed under the name of MOLLI. Students freely use the terminals and still have access to a paper card catalog as well. The staff consists of one certified librarian and one library paraprofessional. These two individuals have over eighteen years of experience each in libraries.

Definitions of Terms

Automated library systems- library management and operations completed through use of a computer.

Boolean logic- implied by the linguistic operators of and, or and not.

CD-ROM systems- computer systems based on compact disk read only memory.

Electronic catalog- the use of a computer program acting as a card catalog.

Library paraprofessional- individual trained in the operations of a library and assists a professional librarian.

OPAC- online public access catalog.

Online card catalog- a computerized card catalog in which one uses a computer terminal to search for library materials.

Operands- the address in a computer instruction of data to be operated on.

Limitations

This study is limited to students at Sailorway Middle School Library. The library automation program developed by Nicholas Technologies places further limitations. Given a different school population, setting, automation program, and personnel the results may not be the same.

CHAPTER II

REVIEW OF THE LITERATURE

Malcom Getz wrote an essay of the gains realized in the introduction of an online card catalog at Heard Library, Vanderbilt University.[1] While this study is not on the secondary level, it does have a relationship to use at that level. Acorn, the online card catalog at Vanderbilt University, was studied for its effectiveness during the first year of use. Getz concluded,

> that the introduction of the electronic card catalog had no effect on the aggregate rate of library use at Vanderbuilt, at least the first year.[2]

The principal benefit of an electronic catalog is the decrease in time required to find materials. Finding time was compared for known-item searches using Paul Kantor's measure of access effort by simulation.[3] Applying these principals searching time was saved by all segments of the university population. On the average 41.8 seconds are saved per search on Acorn. Given

---

[1]Malcolm Getz, "Some Benefits of the Online Catalog," College and Research Libraries 48, (May 1987): 224.

[2]Ibid, 230.

[3]Paul Kantor, Objective Performance Measures for Academic and Research Libraries (Washington, D.C.: Association of Research Libraries, 1984).

overall university use a total of 1,294 hours of user time is saved annually in searches as a consequence of Acorn. Vanderbilt took the amount of time saved and applied an average hourly rate that might be paid to each class of user in the job market. They determined the saving amounted to about $11,000 annually.

The increased probability of success in finding specific items was considered another major consequence. To determine this Paul Kantor's measure of availability technique was used.[4] Users of the library were surveyed as to whether they were successful in their searches. It was discovered that the use of an online card catalog did not significantly lead to improvement in finding known items. The fact that Acorn does act as a union catalog in listing all items in the library's collection did significantly produce more successful finds.

Overall the addition of an online card catalog at Vanderbilt University had a significant effect in reducing the amount of time required for a search and in increasing the probability of success in finding additional resources.[5]

---

[4]Paul Kantor, Objective Performance Measures for Academic and Research Libraries (Washington, D.C.: Association of Research Libraries , 1984).

[5]Malcom Getz, "Some Benefits of the Online Catalog," College and Research Libraries 4 (May 1987): 239.

Malcom Getz wrote another article in 1988 with additional information on the online card catalog at Vanderbilt University.[8] Using the same standards of evaluation as his earlier article he determined use of the online system had saved $200,793 in time spent in the library. While his largest benefit was derived from the time saved using the circulation system, $155,340 per year, the measured gains in known-item searching amounted to over $85,000 per year. There may be further benefits in known-item searching that remain hidden because of the inability to explain to a satisfactory degree the variation in the known-item success rate.

Significant gains by searching done from outside the library by use of data communication links to online system further reduce the number of visits to the library and so save users time spent in the library.

Additional benefits from improved management of the library and its collections is possible due to more complete information about pattern use.

The availability for patrons to access the online system from offices and student rooms has made a change in the character

---

[8]Malcom Getz, "More Benefits of Automation," College and Research Libraries 49 (November 1988): 534.

of delivery of services. This has resulted in increased use of the library's resources.

Malcom Getz summarizes his paper by saying,

> at this point, benefits of the online system are significant. As users gain experience with the online system, the level of benefit increases. Added functions add benefits as well.[7]

The online card catalog has brought revolutionary advances to the field of librarianship. This was the comment by Anne Grodzins Lipow discussing the new system installed at the University of California\Berkeley.[8] Installation of the system provides at one's fingertips the entire contents of the library. A patron only has to know the alphabet to successfully perform a search. He\she doesn't need to wander from one place to another to follow see and see also references. One need not worry about accuracy in copying down bibliographic information as it can be neatly printed out for the user.

The patron no longer must come to the library to use the catalog; the catalog can be wherever you are, and you can use it whether or not the library is open.

---

[7]Malcom Getz, "More Benefits of Automation," College and Research Libraries 49 (November 1988): 543.

[8]Anne Grodzins Lipow. "The Online Catalog: Exceeding our Grasp," American Libraries 23 (October 1989): 862

The catalog can be as up-to-date as the holdings it represents. No more filing backlogs that prevent patrons from finding out about and using material for which a lot of money was spent to acquire and shelve; nor backlogs of records to be removed for materials weeded, or lost and which will not be replaced.

The contents of the catalog are no longer restricted to the holdings of a particular library. Theoretically, there is no limit to the number of libraries the online catalog can represent.

The very definition of a library catalog is changing because of how much more than just book and serial title information the online catalog can contain. It can contain other bibliographic information, such as periodical article titles. It can contain a variety of databases, including full-text files. It can contain acquisitions and circulation information that tells you whether the material you want is on order, or if it is out to another borrower and when it is due back. It can provide advice about how to search the catalog effectively. It can contain information about the library itself, or about community events. It can be the vehicle through which the library can convey information to the searcher, and the searcher can convey information to the library, such as a request for a hold on a

book or the delivery of library material. The limits of the online card catalog have yet to be reached.

Robert N. Bland wrote an article evaluating the performance of the online card catalog.[8] He discovered that the evaluation of automated library systems is a complex task that generally consists of three components: a functional evaluation, an economic evaluation, and a performance evaluation. The point of a functional evaluation is to determine whether a system provides those features or functions which a library desires. For an online public access catalog, these features may range from the ability to do direct Boolean searches with a specified number of operands and operators, to the ability of the system to monitor and provide statistical reports on port activity. An economic evaluation, on the other hand, is an attempt to determine whether a given system is reasonably priced and\or priced within the budget of a library considering purchase. This assessment will normally include an analysis of initial hardware, software, and training costs as well as an analysis of ongoing maintenance and personnel costs. It may also include an analysis of the financial health of the vendor. Finally, a performance

---

[8]Robert N. Bland, "Evaluating the Performance of the Online Public Access Catalog: A Redefinition of Basic Measures," North Carolina Libraries 47 (Fall 1989): 168-73.

evaluation is an attempt to determine whether a system performs or executes its functions within limits negotiated between the vendor and the interested library. This is to include the end user and whether the system is easy to use and understand when help is necessary.

The library literature is replete with studies and recommendations regarding the functional evaluation of online card catalogs. This literature has such breadth and depth that even libraries with limited expertise and experience with automation should have little trouble in choosing between alternative online card catalogs. Through the bidding process and the sharing of information gleaned from contract negotiations libraries generally have also had considerable information upon which to base economic evaluations. Performance evaluation is,

> yet another story. Although there is general agreement on standards of reliability there appears to be little formal or informal consensus within the profession regarding the other aspect of performance evaluation. As a consequence, libraries too often find themselves acquiescing to performance evaluations based on performance measures defined by system vendors. These evaluations may not tell a library what it needs to know.[10]

---

[10]Robert N. Bland, "Evaluating the Performance of the Online Public Access Catalog: A Redefinition of Basic Measures," North Carolina Libraries 47 (Fall 1989): 173.

Frederick G. Kilgour wrote on the online catalog revolution in early 1984.[11] He wrote of computer power that is bringing libraries to the brink of a precendent-shattering socio-technological change as information seekers happily abandon their dependence on the traditional catalog in favor of catalogs designed to provide a multitude of miniature catalogs of multi-dimensional design, accessible by many bibliographic and nonbibliographic avenues. Kilgour said online card catalogs should be evaluated not only on their ability to find a book of which either the author, title, or subject is known, but also to showing what a library has by an author, or on a subject, or in a specific field of literature. The online card catalog must promote the welfare and wellbeing of a community by continuously providing information to all people at all times. The information must be swift and accurate with availability from home, office and other diverse locations. The online card catalog should provide

> access to local, regional, national, and international collections of information.[12]

Kilgour said the years ahead will be exciting for libraries. The 1980s will see initial transition away from

---

[11]Frank G. Kilgour, "The Online Catalog Revolution," Library Journal 109 (February 15, 1984): 319-321.

[12]Ibid., 321.

traditional library collections and processes, while the 1990s will enjoy a wholly new information culture.

Frederick Kilgour's article made it clear to the reader that online card catalogs will profoundly change the way people go about the business of living. His article, like those mentioned previously, centers one's attention on academic and the public libraries' use and evaluation of online card catalogs. This had been so true through the 1970s and 1980s. Little attention was given to the use of online card catalogs in school library media centers and evaluation of effectiveness.

A review of the research on online card catalogs in the United Kingdom was completed by Janet Kinsella in the Spring of 1987.[13] There has been no shortage of research into online card catalogs. The studies relate to either the category of studying existing systems or studying the design of experimental and prototype systems. All the studies have been in the academic and public library setting.

Future studies are addressed by the author, although no mention is given of any being done in school library media centers. Reference is only given to a need to widen the range of studies at the academic library level.

---

[13]Janet Kinsella, "Online Public Access Catalog Research in the United Kingdom: An Overview," Library Trends 14 (Spring 1987): 619-625.

Several notable studies have been done on users of online card catalogs. Sharon Seymour did a review of research studies completed March 1986 - November 1989 on the online card catalog.[14] The vast majority of these studies focused on the academic and public library. Although, one study is addressed by the author that was an observation study of children's use of an online card catalog. The report is not based on a formal procedure but rather an essay based on anecdotal observation by staff members in the library. The main theme of the report is a savings of time spent maintaining the card catalog and this time can now be spent interacting with patrons. Though the report is enthusiastic about children's willingness to use a computer as a catalog, little substantive information is offered.
No information is provided on the effectiveness of the online card catalog for children's use.

Julie Blume Nye did a user study of the online card catalog in which she looked at user interaction with the authority structure of the online catalog.[15]

---

[14]Sharon Seymour, "Online Public Access Catalog User Studies: A Review of Research Methodologies, March 1986-November 1989," Library and Information Science Research 13 (April-June 1991): 89-102.

[15]Julie Blume Nye, "User Interaction with the Authority Structure of the Online Catalog: Results of a Survey," Information Technology and Libraries 7 (September 1988): 313-16.

A survey was conducted during 1987 to identify how online catalog users interact with various aspects of the catalog's authority control structure. Questionnaires were sent to major online catalog system vendors and to selected university libraries and networks known to have developed in-house online catalogs.

The results of this survey indicated maintained authority records under established headings and cross references. The terminology used by the various systems varied widely but the intent was the same. The survey was given only to academic libraries and no school library media centers were included in the study.

Still another study was done concerning the enhancement of subject accessibility to the online card catalog. This study by Elizabeth H. Smith was confined to the college and university libraries.[16] While no school libraries were included the conclusions reached do affect this type of library. The results were:

> the challenge remains, to create a catalog that brings works together, does not separate related subjects or conceal information and allows the user to search with ease and little difficulty no matter whether the query is specific or general.[17]

---

[16]Elizabeth H. Smith, "Enhancing Subject Accessibility to the Online Catalog," Library Resources and Technical Services 35 (January 1991): 109-13.

[17]Ibid. 113.

Karen Markey reported in an article on subject searching experiences that users of online card catalogs have problems with subject searching, particularly in the selection of subject vocabulary. The participants in her study indicated that improvements must be made that will expand and enhance subject searching in the online card catalog. They expressed a desire to increase the amount of subject information included in bibliographic records and to incorporate lists of related terms into the online catalog.

Online card catalogs at Library of Congress, Dallas Public Library and the Ohio State University Libraries respond with lists of subject headings in alphabetical proximity to the user's entered terms, allowing them to browse for other related terms.

This evaluation, like the others cited, did not include school library media centers in the study. The problems cited in this study are possibly true for these types of libraries and their users.

A study by Leslie Edmonds in 1990 was extremely important to the evaluation of the online card catalog.[18] This was the

---

[18]Leslie Edmonds, Paula Moore, and Kathleen Mehaffey Balcom, "The Effectiveness of an Online Catalog," School Library Journal 36 (October 1990): 28-32.

first time that children had been used in a systematic study of the online card catalog. A literature search:

> indicates that no systematic study of online catalog use by children has ever been reported. To date, automation research has made only brief reference to this user group, and then the focus has been primarily on acceptance of technology, not the effectiveness of it.[18]

The study evaluated the skill levels required by software design to be assured that children's access to materials was not hindered by the introduction of an online catalog. Of particular importance was whether children actually can use existing online programs to find needed materials. The location of the study was Downers Grove Public Library in Illinois. The participants represented fourth, sixth and eighth grade students from the local school district. The ages ranged from nine to fourteen-year-olds. The study evaluated students via a skills test portion, preference survey, and observed student use on the online card catalog.

The conclusions of the study raised several important issues which need to be further explored. Younger students, fourth graders, did less well on all skill measurement while

---

[18]Leslie Edmonds, Paula Moore, and Kathleen Mehaffey Balcom, "The Effectiveness of an Online Catalog," School Library Journal 36 (October 1990): 28

those students in the sixth and eighth grade did quite well. Results indicated that use of the online card catalog is dependent on developmental level, experience and training. Since the online card catalog can be complex, it is important to recognize that children who are not yet developmentally capable of mastering the necessary logic for the catalog may require simpler library online card catalogs. Thus,

> our findings suggest that in order to improve children's use of online library catalogs, the catalog needs to be simplified (the total number of rules reduced). In addition, better training and guidance must be furnished to these young people.[20]

Several other studies have been written on the online computer but these have reference to the use of online data base systems. Candace K. Cook wrote an article about the use of DIALOG in the Fairfield Middle School in Ohio.[21] She found that students could understand the principle of how it was done but were not able to actually complete a search themselves on DIALOG. Janet B. Wojnaroski wrote about the use of DIALOG's Classroom Instruction Program (CIP) at Roosevelt High School Library in Kent, Ohio. Use of the online data base is limited to the media

---

[20]Leslie Edmonds, Paula Moore, and Kathleen Mehaffey Balcom, "Effectiveness of an Online Catalog," School Library Journal 36 (October 1990): 32.

[21]Candace K. Cook, "Searching for Excellence: Online at the Middle School," Ohio Media Spectrum 41 (Summer 1989): 6-10.

specialist. There are plans to have students do these searches in the near future after some basic instruction. Effective online searching is not learned in a day or even several weeks. It is a skill which grows with practice.

Dr. R.S. Talab from Kansas State University wrote about the online card catalog and its implication for librarians.[22] The time now made free by this available technology can be used by libarians to have more contact with patrons. While Dr. Talab did not study the effectiveness of the online card catalog she endorsed its use at all levels of the school system.

Dr. Nancy Everhart completed a doctoral dissertation analyzing the work activities of high school media specialists throughout the United States.[23] The study did not emphasize online card catalog effectiveness but did make relationship to it in the amount of automation in school libraries. Dr. Everhart found that librarians that had automated workplaces, including the online card catalog, spent more time assisting students with library resources.

---

[22]R.S. Talab, "A Survey of Kansas School Library\Media Specialists Use of Automated Information Retrieval for Instruction and Management." Ohio Media Spectrum 41 (Winter 1989): 40-3.

[23]Nancy Everhart, "An Analysis of the Work Activities of High School Library Media Specialists in Automated and Nonautomated Library Media Centers." School Library Media Quarterly 21 (Winter 1992): 86-96.

Patricia Hooten wrote an article in 1989 concerning children's access to materials through use of the online card catalog.[24] She stated that these catalogs are in the third generation of development where interactive search assistance, error correction features, and additional information about the contents of materials will be available. While this may the latest development in technology, Ms. Hooten said little attention has been given to effectiveness of these wonders.

> While access to information resources is generally improved by online catalogs, it is unclear if all users will benefit from OPACs. Most researchers who have examined online catalog use have chosen academic and public library environments, focusing on adult users.[25]

There remains a clear absence of available research to determine the effectiveness of the online card catalog for those students in the elementary and middle school library media centers. Studies have and continue to be done on the academic and public library levels.

---

[24]Patricia A. Hooten, "Online Catalogs: Will they Improve Children's Access?" JOYS 2 (Summer 1990): 267-72.

[25]Ibid., 268

Chapter III

METHODOLOGY

Subjects

The participants in this study are sixth, seventh and eighth grade students. They range in age from twelve to fourteen years old. The total population from which a sample was drawn is 600.

A simple random sample method was used to select these participants. Each student was assigned a number from one to six hundred. The sample size established for this study is 236 participants. A table of random numbers was then used to select the participants.

Data Collection

A questionnaire was developed and used to collect the data. Fixed-response questions are the basis of the questions (see appendix). A summated scale, Lickert scale, was employed for data collection.

Students selected to participate came to the school library during the language arts class period. They were informed about the study and asked for their participation.

Those students participating in the study were handed a questionnaire for completion. When participants finished completing their survey they were thanked for their help and then they returned to class. Those participants selected but absent on the day the survey was conducted completed the questionnaire on their return to school.

Data Analysis

Once the questionnaires have been completed tabulations were made for each response by grade level. A cumulative tabulation was made for all participants.

Descriptive statistics were utilized for analysis of the data. Frequency count and percentages were calculated.

Chapter IV

RESULTS

Table 1 shows the distribution of subjects participating in this study by sex and grade level. There is a fairly even distribution of participants from grade level. Within each grade their is a larger percentage of female participants.

Table 1

Distribution of Subjects by Sex and Grade Level

Grade Level	Male		Female		Total	
	f	%	f	%	f	%
Sixth	35	46%	41	54%	76	32%
Seventh	41	46%	49	54%	90	38%
Eighth	26	37%	44	63%	70	30%
Total	102	43%	134	57%	236	100%

Table 2 shows the amount of previous experience each student had prior to completing the survey. There is a large percentage of students that have used the online card catalog with an overall figure of 86 percent, the highest grade being the eighth grade with 97 percent having had some experience on the online card catalog.

Table 2

Student's Perceptions of their Experience with Online Card Catalog by Grade Level

Level of Experience	Grade Six f	Six %	Seven f	Seven %	Eight f	Eight %	Total f	Total %
Experience	67	88%	69	77%	68	97%	204	86%
No Experience	9	12%	21	23%	2	3%	32	14%
Total	76	100%	90	100%	70	100%	236	100%

The ease of use of the online card catalog is represented by Table 3. Combining those responses of strongly agree and agree one finds that 93 percent believe the online card catalog is not difficult to use. The highest degree of difficulty in use is in the sixth grade.The degree of difficulty becomes extremely low when viewing the eighth grade results. Thus, it was found that of the overall student population served, only 7 percent find the online card catalog difficult to use.

Table 3

Ease of use for the Online Card Catalog as Determined by Students

Ease of Use	Grade Six f	Six %	Seven f	Seven %	Eight f	Eight %	Total f	Total %
Strongly Agree	19	28%	26	37%	20	29%	65	32%
Agree	41	59%	41	59%	44	65%	126	61%
Disagree	6	9%	3	4%	2	3%	11	5%
Strongly Disagree	3	4%	0	0%	2	3%	5	2%
Total	69	100%	70	100%	68	100%	207	100%

Now a comparison is made on ease of use when compared to the paper card catalog. The results indicated in Table 4 indicate that 86 percent agree that the online card catalog is the easier of the two to use. This figure is highest, 90 percent each, among the seventh and eighth grade students. The sixth grade agrees only at a 78 percent level. While overall disagreement is relatively low at 14 percent we see again similarity between the seventh and eighth grade

Table 4

Student's Perceptions that the Online Card Catalog is Easier to Use than the Paper Card Catalog

Ease of Use	Grade Six f	Six %	Seven f	Seven %	Eight f	Eight %	Total f	Total %
Strongly Agree	27	39%	39	55%	32	48%	98	47%
Agree	27	39%	25	35%	28	42%	80	39%
Disagree	8	11%	7	10%	6	9%	21	10%
Strongly Disagree	8	11%	0	0%	1	1%	9	4%
Total	70	100%	71	100%	67	100%	208	100%

students. These two levels disagree at the same level of 10 percent, while the sixth grade level again has the highest disapproval at 22 percent.

The student's perception that more materials were found on the online card vs the paper card catalog is now shown in Table 5.

Table 5

Student's Perception that More Materials were Found Using the Online Card Catalog vs the Paper Card Catalog

Greater Amount of Materials Found	Grade Six f	Six %	Seven f	Seven %	Eight f	Eight %	Total f	Total %
Strongly Agree	23	33%	26	37%	34	51%	83	40%
Agree	28	40%	32	45%	23	34%	83	40%
Disagree	17	24%	10	14%	8	12%	35	17%
Strongly Disagree	2	3%	3	4%	2	3%	7	3%
Total	70	100%	71	100%	67	100%	208	100%

The overall amount of student participants strongly agreeing and agreeing is 80 percent. The seventh and eighth grade students are very similar in the level of response, 85 percent and 82 percent respectively. We see again the lowest approval percentage comes from the sixth grade at 73 percent. Considering the disapproval ratings we see once again similarity between the seventh and eighth grade students at 15 percent and 18 percent respectively. The sixth grade shows the highest disapproval ratings by 27 percent choosing to disagree and strongly disagree. The responses in the sixth grade have a major impact on the overall percentage of disapproval of 20 percent feeling online card catalog is not more useful than the paper card catalog.

A comparison was done between the male and female participants for the perception that more materials were found using the online card catalog vs the paper card catalog. These results are shown in Tables 6 and 7. There is little difference in the overall percentage of strongly agree and agree between males and females. The figures of 83 percent for males and 78 percent for females is very similar. Accordingly, ratings of disagree and strongly disagree show 17 percent for males and 22 percent for females, once again, very little difference. When comparing the strongly agree and agree rating between grades high percentages and little difference between male

Table 6

Male Student Perceptions that More Materials were Found Using the Online Card Catalog vs the Paper Card Catalog

Greater Amount of Materials Found	Grade Six f	Six %	Seven f	Seven %	Eight f	Eight %	Total f	Total %
Strongly Agree	13	42%	15	48%	12	48%	40	45%
Agree	12	38%	12	39%	9	36%	33	38%
Disagree	6	19%	1	3%	3	12%	10	11%
Strongly Disagree	1	3%	3	10%	1	4%	5	6%
Total	32	100%	31	100%	25	100%	88	100%

and female at the eighth grade level are found. There is a striking difference shown though when comparing sixth grade and seventh grade males vs females. A lower approval rating is indicated by females in the sixth and seventh grade vs their male counterparts in the same grade. There is a particularly high disparity between male and females in the strongly agree level.

Table 7

Female Student Perceptions that More Materials were Found Using the Online Card Catalog vs the Paper Card Catalog

Greater Amount of Materials Found	Grade Six f	Six %	Seven f	Seven %	Eight f	Eight %	Total f	Total %
Strongly Agree	10	26%	11	28%	22	52%	43	36%
Agree	18	42%	20	50%	14	34%	50	42%
Disagree	11	29%	9	22%	5	12%	25	20%
Strongly Agree	1	3%	0	0%	1	2%	2	2%
Total	38	100%	40	100%	42	100%	120	100%

The last comparison is students' desire to use the online card catalog in the future. This is shown by Table 8. There is an extremely high level, 89 percent, that will use the online card catalog in the future. The 11 percent indicating no future planned use is very small. The comparisons between grades show almost similar

percentages between seventh and eighth grade students. The sixth grade shows lower future use by students and subsequently a higher negative use.

Table 8

Students Planning To Use the Online Card Catalog in the Future

Plan to Use in the Future	Grade Six f	Six %	Seven f	Seven %	Right f	Right %	Total f	Total %
Yes	62	83%	83	92%	63	91%	208	89%
No	13	17%	7	8%	6	9%	26	11%
Total	75	100%	90	100%	69	100%	236	100%

CHAPTER V

SUMMARY AND CONCLUSIONS

The field of librarianship is greatly affected by the use of technology. The school library has become a fertile ground for its implementation and further development. The use of the online card catalog is a powerful new tool. It serves as an excellent management tool, a motivational tool, and an impressive instructional tool.

Yet the school library media center is void of research on the effectiveness of the online card catalog. While studies have been done at the academic and public library level none have been completed at the secondary. The public library has only reported one study and that for children above the age of fourteen years old.

The study completed in this paper has demonstrated the acceptance of sixth, seventh, and eighth grade students students to an online card catalog in a school library media center. The students' perceptions of its effectiveness have been shown in high percentages.

Seventh and eighth grade students agree in large percentages that the online card catalog is effective in their library research.

These students have had more experience with the middle school library and understand to a greater degree the expectations of their teachers. Students in these two grade levels must produce a research paper where a considerable amount of library research is required. While the sixth graders display a lower level of acceptance of the online card catalog than the other two grades they are less experienced with the new technology and the required research paper.

Thus, it can be concluded that online card catalogs are effective in the views of student patrons. Their availability assists the patron in finding materials more quickly, move easily, and in greater quantities than the paper card catalog ever permitted.

QUESTIONNAIRE

Study - The Effectiveness of the Online Card Catalog for Sixth, Seventh and Eighth Grade Students at Sailorway Middle School Library: A Survey.

Returning this questionare implies that you have consented to participate in this study.

DIRECTIONS: Mark an "X" in the appropriate space that best answers each one of these questions. Please do not write your name on this paper.

1. State whether you are:

_____Male _____Female

2. State grade level:

_____Sixth Grade _____Seventh Grade _____Eighth Grade

3. Have you used the online card catalog in the library this school year?

_____Yes _____No (Go to question number 7)

4. Do you believe the online card catalog was easy to use?

Strongly Agree	Agree	Disagree	Strongly Disagree
_____	_____	_____	_____

5. Do you believe the online card catalog is easier to use that the paper card catalog?

Strongly Agree	Agree	Disagree	Strongly Disagree
_____	_____	_____	_____

6. Do you think you found more library materials by using the online card catalog than using the paper card catalog?

Strongly Agree	Agree	Disagree	Strongly Disagree
_____	_____	_____	_____

7. Do you plan to use the online card catalog in the future?

_____Yes _____No

BIBLIOGRAPHY

Bland, Robert N. "Evaluating the Performance of the Online Public Access Catalog." North Carolina Libraries 47 (Fall 1989): 168-73.

Cook, Candace K. "Searching for Excellence: Online at the Middle School." Ohio Media Spectrum 41 (Summer 1989): 6-10.

Edmonds, Leslie, Paula Moore, and Kathleen Mehaffey Balcom. "The Effectiveness of an Online Catalog." School Library Journal 36 (October 1990): 28-32.

Everhart, Nancy. "An Analysis of the Work Activities of High School Library Media Specialists in Automated and Nonautomated Library Media Centers." School Library Media Quarterly 21 (Winter 1982): 88-96.

Getz, Malcom. "More Benefits of Automation." College and Research Libraries 49 (November 1988): 534-43.

_____. "Some Benefits of the Online Catalog." College and Research Libraries 48 (May 1987): 224-39.

Hooten, Patricia. "Online Catalogs: Will they Improve Children's Access?" JOYS 2 (Summer 1990): 267-72.

Kantor, Paul. Objective Performance Measures for Academic and Research Libraries. Washington, D.C.: Association of Research Libraries, 1984.

Kilgour, Frank G. "The Online Catalog Revolution." Library Journal 109 (February 15, 1984): 319-321.

Kinsella, Janet. "Online Public Access Catalog Research in the United Kingdom: An Overview." Library Trends 14 (Spring 1987): 819-825.

Lipow, Anne Grodzins. "The Online Catalog: Exceeding our Grasp." American Libraries 23 (October 1989): 862.

Murphy, Catherine. Automating School Library Catalogs: A Reader. Englewood, Colorado: Libraries Unlimited, Inc., 1992.

Nye, Julie Blume. "User Interaction with the Authority Structure of the Online Catalog: Results of a Survey." Information Technology and Libraries 7 (September 1988): 313-18.

Seymour, Sharon. "Online Public Access Catalog User Studies: A Review of Research Methodologies." Library and Information Science Research 13 (April-June 1991): 89-102.

Smith, Jane Brandy. School Library Media Annual: 1988 Volume Six Englewood, Colorado: Libraries Unlimited, Inc., 1988.

Talab, R.S. "A Survey of Kansas School Library\Media Specialists Use of Automated Information Revtrieval for Instruction and Management." Ohio Media Spectrum 41 (Winter 1989) 40-3.

Woolls, Blanche. The Research of School Library Media Centers. Castle Rock, Colorado: Hi Willow Research and Publishing, 1990.